

## CLAIMS

1. System for controlling remote apparatuses, comprising a remote apparatus (A), an apparatus (B) for supervising the remote apparatus (A) and a communication channel (C) between  
5 said apparatuses on which both data and command messages transit, said remote apparatus (A) being controlled by said supervising apparatus (B) by sending a command message, which is recognised as such by a device (D), installed in the remote apparatus (A) and coupled to said communication  
10 channel (C), said device (D) being active at all times when the system is in use to pick up what is transiting on the communication channel (C) without interruptions, characterised in that said remote apparatus (A) sends a feedback message to said supervising apparatus (B),  
15 confirming that said command message has been received.

2. System according to claim 1, characterised in that said device (D) comprises:

- a two-way serial interface (D1);
- a unit (D2) for processing the messages received from  
20 said two-way serial interface (D1) and locally from the same remote apparatus (A), and for generating said feedback message;
- a command signal generator (D3), the signal consisting of a variation of status concerning one or more electrical  
25 lines (R) directed to said remote apparatus (A).

3. System according to claim 2, characterised in that said received message processing unit (D2) is capable of recognising said command message as a particular sequence of characters received from the two-way serial interface (D1).

30 4. System according to claim 3, characterised in that said command message is a reset message.

5. System according to claim 4, characterised in that said device (D) comprises a local reset input (D4).

6. System according to claim 5, characterised in that said received message processing unit (D2) is capable of  
5 recognising reset messages from either said local reset input (D4) or said remote apparatus (A).

7. System according to claim 3, characterised in that said sequence of characters is either sufficiently long or encoded in such as way to make its random appearance  
10 unlikely.

8. System according to claim 1, characterised in that said device (D) is connected to a line (CC) which is an extension of the communication channel (C).

9. System according to claim 1, characterised in that said  
15 device (D) consists of a microcontroller (MC) capable of performing one or more of the following functions:

- continuously receiving characters on the serial line (RX), belonging to said line (CC) connected to the communication channel (C);
- 20 - controlling the sequence of received characters to activate the reset procedure after acknowledging the correct sequence;
- checking local reset input (D4);
- checking variations of local reset request line (RR)  
25 from the microcontroller that manages the remote apparatus (A);
- running a reset procedure, outputting the respective signal on the line (R) and activating a light indicator (IL);
- 30 - sending a confirmation message on the serial line (TX) belonging to (CC) connected to the communication channel (C).

10. System according to claim 9, characterised in that said device (D) is integrated in a microprocessor or microcontroller capable of performing the aforesaid functions in addition to its own.

5 11. A device (D) for generating a command signal for a remote apparatus (A) controlled by a supervising apparatus (B) through a communication channel (C), said device (D) comprising:

- a two-way serial interface (D1) coupled to said  
10 communication channel (C),

- a unit (D2) for processing messages received from said two-way serial interface (D1),

- a command signal generator (D3) for generating said command signal responsive to a corresponding command message  
15 received from said supervising apparatus (B),

characterised in that it further comprises a feedback message generator (D2) for sending, through said two-way serial interface (D1), a feedback message to said supervising apparatus (B) confirming that said command  
20 message has been received.

12. A device according to claim 11, characterised in that said command signal consists of a variation of status concerning one or more electrical lines (R) directed to said remote apparatus (A).

25 13. A device according to claim 11, characterised in that said command message is a reset message and said command signal is a reset signal for said remote apparatus (A).

14. A device according to claim 11, characterised in that said a two-way serial interface (D1) is connected to a line  
30 (CC), which is an extension of said communication channel (C).